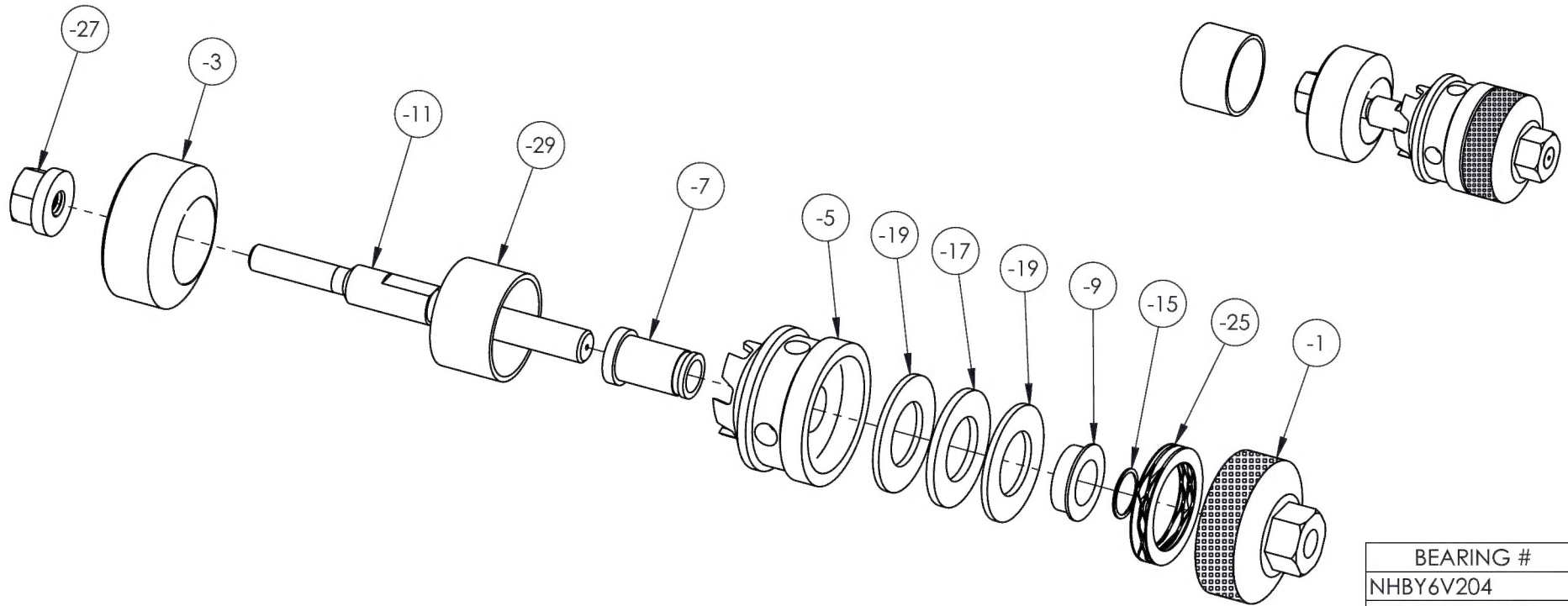


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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0028	UPDATED TO NEW DRAFTING STANDARD. -1, -3, -5, -11 ADDED FINISH SPEC. QMSI-6.2.2, B.O. REV D. -1 CH'D DIM'S WAS (Ø1.375) IS Ø1.38, WAS 5/16-24 UNF THRU ALL IS 5/16-24 UNF -2B THRU ALL CH'D MATERIAL WAS 1018 IS 1018/1020 CR. -3, -11 CH'D MATERIAL WAS 4140 Q&T IS 4140/4142, ADDED HEAT TREAT RC 25-32. -3 CH'D DIM WAS (Ø1.38) IS Ø1.38. -5 CH'D DIM WAS (Ø1.375) IS Ø1.38. -7, -9 CH'D MATERIAL WAS BRONZE IS BRONZE 660. -11 CH'D DIM'S WAS 5/16-24 IS 5/16-24 UNF -2A, WAS 1/4-20 IS 1/4-20 UNC -2A. -25 CH'D B/O P/N WAS APPLIED SMALLEY RING CO. #CS112-H2).	2/28/2017	RJC	JAG
3	17-0087	-1 CH'D DIM'S WAS .400 IS .40, WAS .535 IS .54, WAS .850 IS .85. -3 DELETED ENGRAVE P/N NOTE.	4/17/2017	RJC	JAG

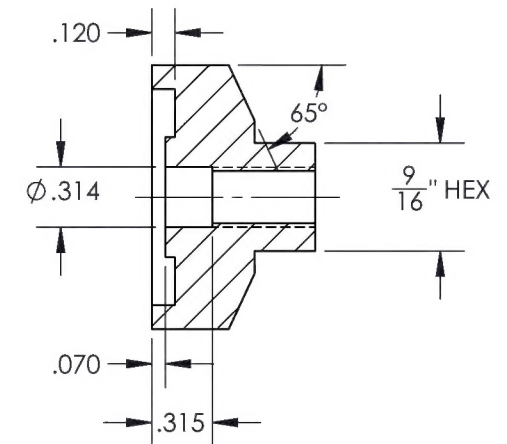
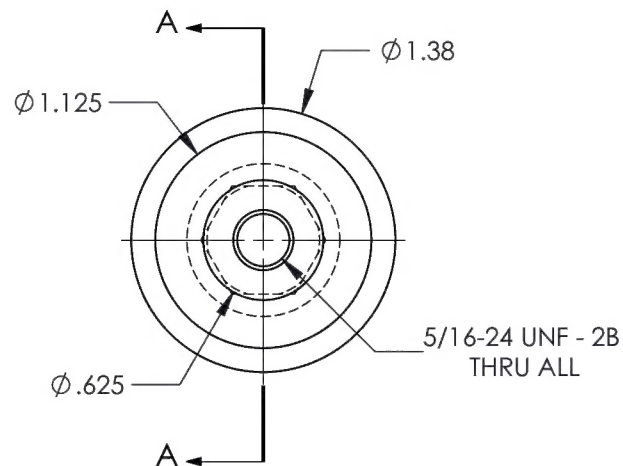
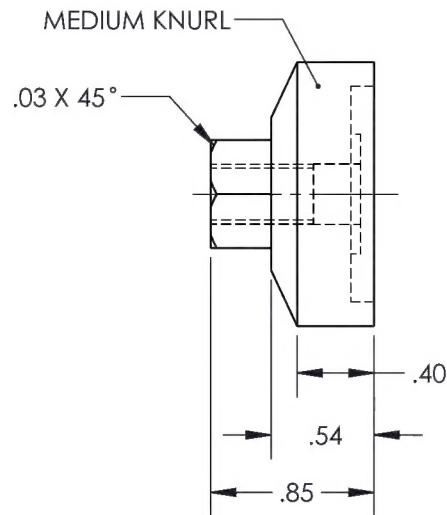
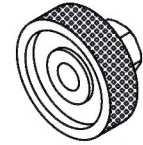


BEARING #
NHBY6V204
109-0133-11-101

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.				
			-1	1	SPRING TENSIONER	1018/1020 CR		2	PORTABLE BEARING CUTTERS			
			-3	1	SEAT	4140/4142		3				
			-5	1	CUTTER	0-1 DRILL ROD		4	RBW1006-P			
			-7	1	GUIDE	BRONZE 660		5				
			-9	1	BUSHING	BRONZE 660		6	REV 3			
			-11	1	STUD	4140/4142		7				
		B/O	-15	1	SPRIAL RETAINING RING	STEEL	Ø7/16 SHAFT (MCMMASTER-CARR #91665A350)	1	SPEC UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES = 125✓			
		B/O	-17	1	THRUST BEARING		Ø5/8 ID X 1-1/8 OD X 5/64 (APPLIED #NTA-1018)	1				
		B/O	-19	2	THRUST WASHER		Ø5/8 ID X 1-1/8 OD X 1/16 (APPLIED #TRB-1018)	1	DRAWN BY: GILBERT CHECKED: DUERFELDT OPPS APPR: ANDERSON QA APPR: LINDSAY APPROVED: GILBERT			
		B/O	-27	1	SWIVEL HEX FLANGE NUT	STEEL	1/4-20 UNC (MCMMASTER-CARR #90477A029)	1				
		B/O	-25	1	WAVE SPRING	STEEL	(APPLIED SMALLEY RING CO # CS112-H2)	1	USED ON MODEL			
		B/O	-29	1	TOOTH GUARD (FOR SHIPPING ONLY)	VINYL	Ø15/16 ID X 5/8 LONG	1				
		B/O	-23	1	SPANNER WRENCH		Ø1-1/2 (MCMMASTER-CARR #5475A13)	N/S	SCALE 1:1.5 DATE 9/26/2013 SHEET 1 OF 7			

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0028	-1 CH'D DIM'S WAS (Ø1.375) IS Ø1.38, WAS 5/16-24 UNF THRU ALL IS 5/16-24 UNF -2B THRU ALL. CH'D MATERIAL WAS 1018 IS 1018/1020 CR, ADDED FINISH SPEC. QMSI-6.2.2, B.O. REV D.	2/28/2017	RJC	JAG
3	17-0087	-1 CH'D DIM'S WAS .400 IS .40, WAS .535 IS .54, WAS .850 IS .85.	4/17/2017	RJC	JAG



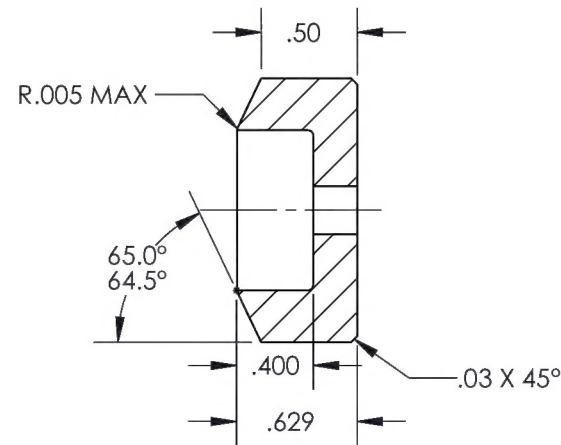
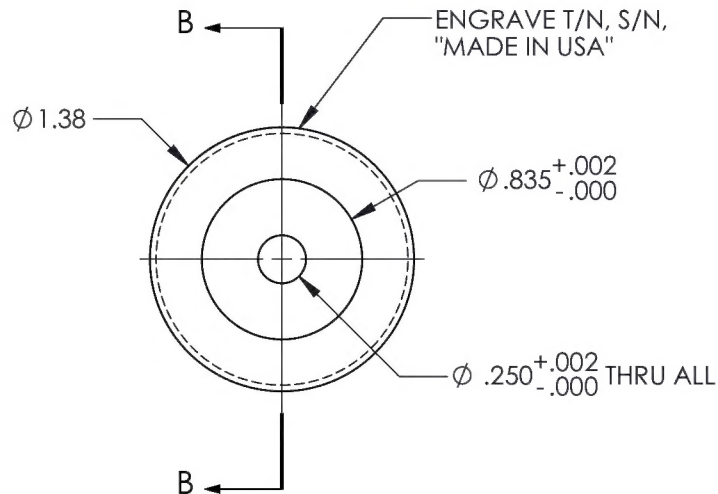
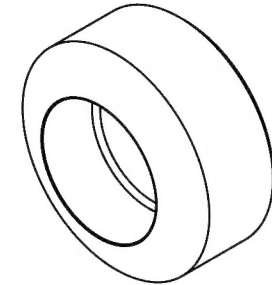
SECTION A-A

-1
SPRING TENSIONER

DART AEROSPACE	
TITLE PORTABLE BEARING CUTTER	
DWG NO. RBW1006-P-1	REV 3
MAT'L 1018/1020 CR	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
HEAT TREAT	.XXX ± .005 FRACTIONS ± 1/8
FINISH BLACK OXIDE	.XX ± .01 ANGLES ± 5°
SPEC QMSI-6.2.2, B.O. REV D	.X ± .1 SURFACES = 125° ✓
DRAWN BY: GILBERT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: DUERFELDT	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	
SCALE 1:1	DATE 9/26/2013
SHEET 2 OF 7	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0028	-3 CH'D DIM WAS (Ø1.38) IS Ø1.38. CH'D MATERIAL WAS 4140 Q&T IS 4140/4142. ADDED HEAT TREAT RC 25-32. ADDED FINISH SPEC. QMSI-6.2.2, B.O. REV D.	2/28/2017	RJC	JAG
3	17-0087	-3 DELETED ENGRAVE P/N NOTE.	4/17/2017	RJC	JAG



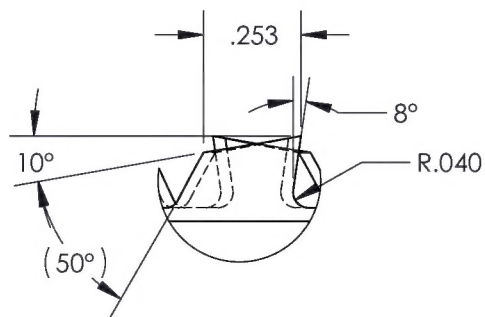
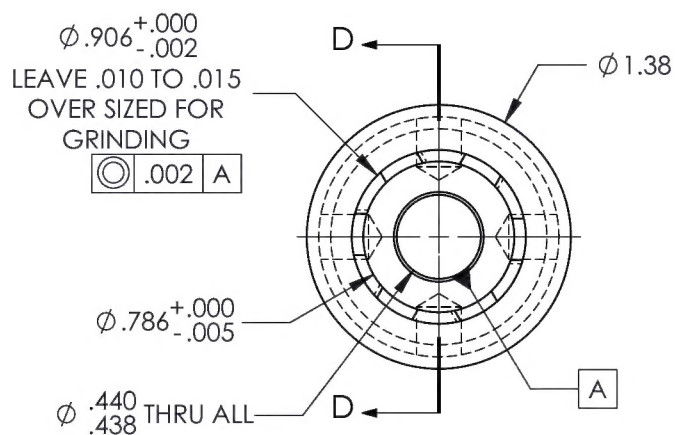
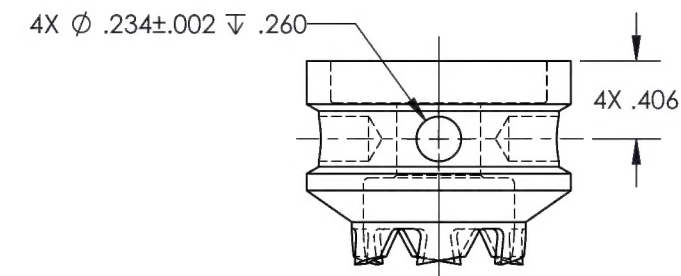
SECTION B-B

(-3)

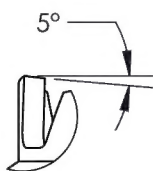
SEAT

DART AEROSPACE	
TITLE PORTABLE BEARING CUTTER	
DWG NO. RBW1006-P-3	REV 3
MAT'L 4140/4142	UNLESS OTHERWISE SPECIFIED
HEAT TREAT RC 25-32	DIMENSIONS ARE IN INCHES
FINISH BLACK OXIDE	.XXX ± .005 FRACTIONS ± 1/8
SPEC QMSI-6.2.2, B.O. REV D	.XX ± .01 ANGLES ± .5°
DRAWN BY: GILBERT	.X ± .1 SURFACES = 125°
CHECKED: DUERFELDT	1. BREAK ALL SHARP EDGES
OPPS APPR: ANDERSON	.015 x 45° OR .015R
QA APPR: LINDSAY	2. DIMENSIONAL LIMITS APPLY
APPROVED: GILBERT	AFTER PLATING
SCALE 1:1	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
DATE 9/26/2013	USED ON MODEL
SHEET 3 OF 7	

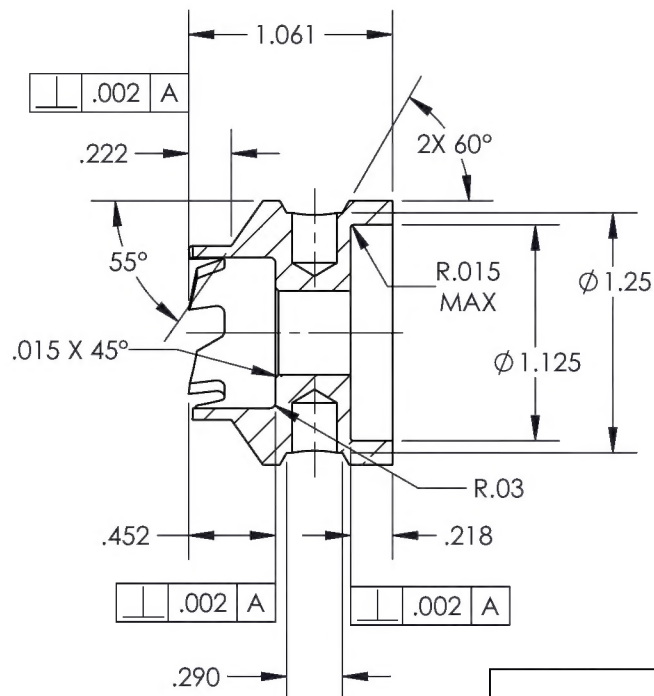
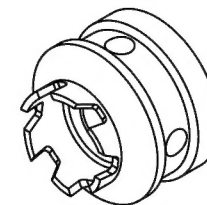
REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0028	-5 CH'D DIM WAS (Ø1.375) IS Ø1.38. ADDED FINISH SPEC. QMSI-6.2.2, B.O. REV D.	2/28/2017	RJC	JAG



DETAIL VIEW
SCALE 2 : 1
TYP TO 6 TEETH



⑤
CUTTER



SECTION D-D



TITLE	PORTABLE BEARING CUTTER
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DWG NO. RBW1006-P-5

RE	3
----	---

MAT'L	0-1 DRILL ROD
-------	---------------

HEAT TREAT	55-60 HRC
------------	-----------

TREAT	SS SS FIN
FINISH	BLACK OXIDE

SPEC	QMSI-6.2.2, B.O. REV D
------	------------------------

DRAWN BY:	GILBERT
-----------	---------

CHECKED:	DUERFELD
----------	----------

OPPS APPR:	ANDERSON
------------	----------

QA APPR:	LINDSAY
----------	---------

APPROVED:	GILBERT
-----------	---------

APPROVED:	GILBERT
SCALE	1:1

UNLESS OTHERWISE SPECIFIED

DIMENSIONS ARE IN INCHES
XX + .005 FRACTIONS ± 1/8

AX $\pm .005$ FRACTIONS $\pm 1/8$
X $\pm .01$ ANGLES $\pm .5^\circ$
SURFACES $\pm .005$

± .1 SURFACES = 125
BREAK ALL SHARP EDGES

BREAK ALL SHARP EDGES
.015 x 45° OR .015R

**DIMENSIONAL LIMITS APPLY
AFTER PLATING**

AFTER FLATING
INTERPRET DIM AND TOL PER
ASME Y14.5M-2009

ASME Y14.5M-2009

USED ON MODEL

USED ON MODEL

2013	SHEET 4 OF 7
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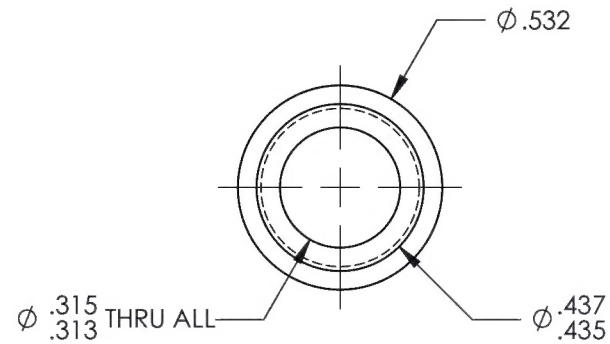
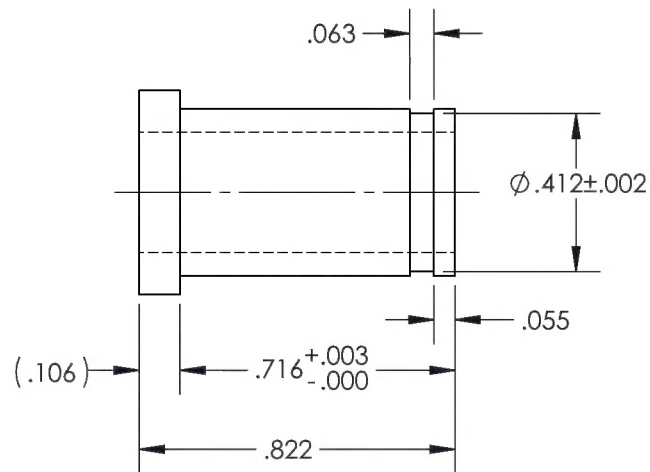
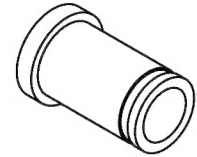
APPROVED:	GILBERT
SCALE	1:1

DATE	9/26/2013
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SHEET 4 OF 7

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0028	-7 CH'D MATERIAL WAS BRONZE IS BRONZE 660.	2/28/2017	RJC	JAG

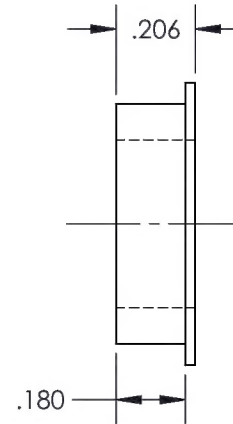
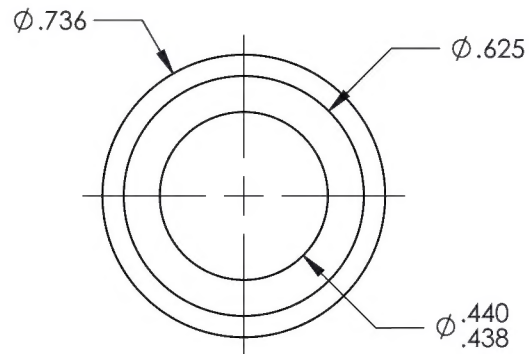
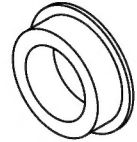


(-7)
GUIDE

DART AEROSPACE	
TITLE PORTABLE BEARING CUTTER	
DWG NO. RBW1006-P-7	REV 3
MAT'L BRONZE 660	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TREAT 	.XXX ± .005 FRACTIONS ± 1/8
FINISH 	.XX ± .01 ANGLES ± .5°
SPEC 	.X ± .1 SURFACES = 125° ✓
DRAWN BY: GILBERT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: DUERFELDT	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	
SCALE 2:1	DATE 9/26/2013
SHEET 5 OF 7	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0028	-9 CH'D MATERIAL WAS BRONZE IS BRONZE 660.	2/28/2017	RJC	JAG



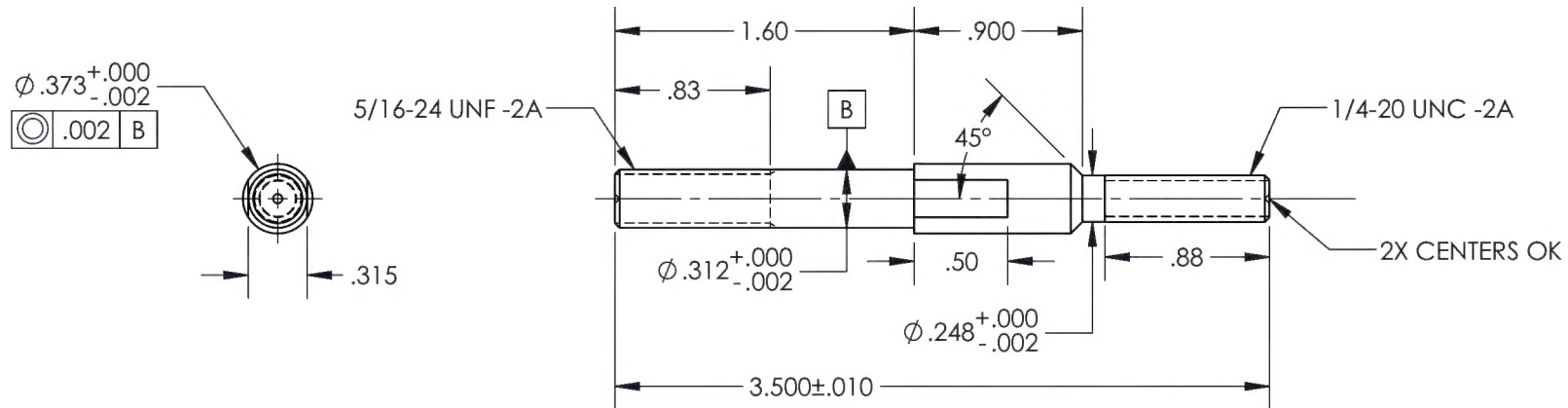
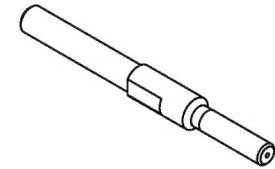
(-9)

BUSHING

DART AEROSPACE	
TITLE PORTABLE BEARING CUTTER	
DWG NO. RBW1006-P-9	REV 3
MAT'L BRONZE 660	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TREAT 	.XXX ± .005 FRACTIONS ± 1/8
FINISH 	.XX ± .01 ANGLES ± .5°
SPEC 	.X ± .1 SURFACES = 125° ✓
DRAWN BY: GILBERT	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
CHECKED: DUERFELDT	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
OPPS APPR: ANDERSON	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	
SCALE 2:1	DATE 9/26/2013
SHEET 6 OF 7	

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REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
2	17-0028	-11 CH'D DIM'S WAS 5/16-24 IS 5/16-24 UNF -2A, WAS 1/4-20 IS 1/4-20 UNC -2A, CH'D MATERIAL WAS 4140 Q&T IS 4140/4142, ADDED HEAT TREAT RC 25-32, ADDED FINISH SPEC. QMSI-6.2.2, B.O. REV D.	2/28/2017	RJC	JAG



(-11)

STUD

DART AEROSPACE	
TITLE PORTABLE BEARING CUTTER	
DWG NO. RBW1006-P-11	REV 3
MAT'L 4140/4142	UNLESS OTHERWISE SPECIFIED
HEAT TREAT RC 25-32	DIMENSIONS ARE IN INCHES
FINISH BLACK OXIDE	.XXX ± .005 FRACTIONS ± 1/8
SPEC QMSI-6.2.2, B.O. REV D	.XX ± .01 ANGLES ± .5°
DRAWN BY: GILBERT	.X ± .1 SURFACES = 125°
CHECKED: DUERFELDT	1. BREAK ALL SHARP EDGES
OPPS APPR: ANDERSON	.015 x 45° OR .015R
QA APPR: LINDSAY	2. DIMENSIONAL LIMITS APPLY
APPROVED: GILBERT	AFTER PLATING
SCALE 1:1	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
DATE 9/26/2013	USED ON MODEL
SHEET 7 OF 7	